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A composition comprising human antibodies that bind to human tumor necrosis factor alpha.

- 2. The composition of claim 1 wherein the antibodies comprise antibodies of the IgM type.
- 3. The composition of claim 1 wherein the antibodies comprise antibodies of the IgG type.
- 4. The composition of claim 1 in a pharmaceutically acceptable carrier.
- 5. The composition of claim 1 wherein the antibodies are suitable for intravenous administration.
- 6. The composition of claim 1 wherein the antibodies also bind to mouse tumor necrosis factor alpha.
- 7. The composition of claim 1 wherein the antibodies can bind to non-neutralizing epitopes of tumor necrosis factor alpha.
- 8. The composition of claim 1 wherein the antibodies are specific for tumor necrosis factor alpha.
- 9. The composition of claim 1 wherein the antibodies bind to tumor necrosis factor alpha on human cell surfaces.
- 10. The composition of claim 1 wherein the antibodies inhibit secretion of tumor necrosis factor alpha.

08/026,951 Boyle et al. 3/5/93 An antibody preparation characterized by binding specifically to human TNF alpha, and having a titer comparable to three high affinity neutralizing mouse monoclonal antibodies when tested by ELISA.

- 13. The antibody of claim 11 having the further characteristic of binding to cell surface TNF alpha on cells selected from the group consisting of human T cells, B cells, monocytes and lymphoid on monocyte lineage cell lines of human origin.
- 14. The antibody of claim 11 having the further characteristic of inhibiting LPS induced TNF alpha secretion by human monocyte-like cells.